In checking through various basic texts used by medical and nursing students, I could find no specific instructions on the placement of the arm during measurement of blood pressure. One patient with a home cuff apparatus did find in the instruction brochure of his machine that the arm should be at the side. It thus appears that the position of the arm is critically important in obtaining an accurate reading on which to base therapy.

Blood pressure readings were taken on a small series of normotensive and hypertensive patients who were receiving therapy. All were seated. Readings were taken with the arms (usually the left) at their sides, so that the cuff and heart were at the same level. Other readings were taken with the arm extended forward at 90 degrees, elevated in the *heil* position and with the patient bent over so the cuff was below the level of the heart by about 2 in. The results are tabulated in Table 1.

One of my patients, an engineer, stated that in a fluid system the static pressure readings taken above the pump or reservoir will be lower and those taken below will be higher.

Concern has recently been expressed over pronounced hypertensive blood pressure readings taken by people using inversion boots. These results may well have been due, however, to the way the readings were taken, with the cuff held below the level of the heart.

When I attended a recent local lecture given by an authority on hypertension from Tulane University Medical School, he told me that he always took blood pressure readings by holding the patient's arm in his armpits, so I thought it was time to publish.

Home readings with arms on breakfast tables and readings on supermarket machines, as well as some professionally taken blood pressure readings, may be lulling some patients into a false sense of security. Further, work should be done with intra-arterial readings with the arms in the above-described four positions to confirm the clinical findings.

If such confirmations hold true, then patients and professionals should all be instructed to take blood pressure readings with the cuff at the same level as the heart, whether the patient is supine, seated or standing.

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Epidemiology of Malignant Disease

To THE EDITOR: I read with great interest Dr Edward Smuckler's article "Chemicals, Cancer and Cancer Biology" in the July issue.[1] Not being specially trained in oncology I found his exposition of the present thinking on the etiology and pathogenesis of cancer most informative.

Publication of this paper is especially timely in view of the indictment by the House of Delegates of the American Medical Association of our news media and politicians for conducting a "witch hunt" against dioxin among a large number of chemicals with toxic potential.

Two matters puzzle me on the epidemiology of malignant disease in general:

1. Although we have in the past half century been living in a period of increasing industrialization with many new chemicals of possible carcinogenicity, statistics quoted in the last part of Dr Smuckler's article show that, with the single exception of lung cancer, the cancer incidence when corrected for age has been stable or in some organs has even decreased.

The likelihood of diagnosing cancer has increased proportionately to the greater availability and better diagnostic facilities today. Is this not indicative of a *fall in cancer incidence* and risk? How can any credence be given to Dr Epstein's prediction, mentioned by Dr Smuckler, of the imminence of an epidemic of neoplastic disease from environmental contamination?

2. In light of the species specificity of nearly all types of cancer why have so much reliance and expenditure of research funds been placed on animal experiments?

In view of the long record of failure to relate the results of these studies to the human experience (saccharin, cyclamates, nitrosamines, formaldehyde, honey and so forth) should not the Delaney clause be amended or even repealed?

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REFERENCE

1. Smuckler, EA: Chemicals, cancer and cancer biology (Medical Progress). West J Med 1983 Jul; 139:55-74